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*Flying Operations*

**U-2--AIRCREW EVALUATION CRITERIA**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This volume implements AFD 11-2, *Aircraft Rules and Procedures*; AFD 11-4, *Aviation Service*; and AFI 11-202V2, *Aircrew Standardization/Evaluation Program*. It contains detailed procedures and criteria for evaluation of all pilots flying U-2 aircraft. It does not apply to the Air National Guard (ANG) or Air Force Reserve Command (AFRC). Major commands (MAJCOM)/direct reporting units (DRU)/field operating agencies (FOA) are to forward proposed MAJCOM/DRU/FOA-level supplements to this volume to HQ USAF/XOOT, through HQ ACC/XOFR, for approval prior to publication IAW AFD 11-2. Copies of MAJCOM/DRU/FOA-level supplements, after approved and published, will be provided by the issuing MAJCOM/DRU/FOA to HQ USAF/XOOT, HQ ACC/XOFR, and the user MAJCOM/DRU/FOA offices of primary responsibility. Field units below MAJCOM/DRU/FOA level will forward copies of their supplements to this publication to their parent MAJCOM/DRU/FOA office of primary responsibility for post publication review. **NOTE:** The terms DRU and FOA as used in this paragraph refer only to those units that report directly to HQ USAF. Keep supplements current by complying with AFI 33-360V1, *Publications Management Program*. See paragraph 1.2. of this volume for procedures on how and where to submit recommended changes to this instruction. Ensure all records created by this instruction are maintained and disposed of according to AFMAN 37-139, *Records Disposition Schedule*.

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## Chapter 1

### GENERAL INFORMATION

**1.1. General.** Conduct all evaluations in accordance with (IAW) the provisions of AFI 11-401, *Flight Management*; AFI 11-202V2, *Aircrew Standardization/Evaluation Program*; and this volume.

1.1.1. Headquarters Air Combat Command, Flight Operations Division (HQ ACC/XOF), has overall responsibility for administration of this AFI.

1.1.2. Copies will be current and available to planning staffs from headquarters to aircrew level.

**1.2. Recommended Changes/Waivers.** Do not deviate from the policies and guidance in this AFI under normal circumstances. If an urgent requirement or aircraft emergency dictates otherwise, the pilot in command, or instructor, will take the appropriate action to safely recover the aircraft.

1.2.1. Submit proposed changes to this AFI through appropriate channels to HQ ACC/XOFR according to AFI 11-215, *Flight Manuals Program (FMP)*. Use AF Form 847, **Recommendation for Change of Publication**.

1.2.2. When a controlling source publication changes, that publication takes precedence until the change is incorporated herein. After a change is made to a controlling source, a change to this AFI will be distributed in a timely manner.

1.2.3. Waiver authority is the parent MAJCOM/XO/DO unless otherwise directed in this AFI.

### 1.3. Procedures:

1.3.1. Standardization/Evaluation Flight Examiners (SEFE) will use the evaluation criteria contained in **Table 3.1** for conducting all flight and emergency procedures evaluations.

1.3.2. U-2 pilots normally take their instrument evaluations in the Companion Trainer Program (CTP) T-38. Pilots not participating in the CTP will take instrument evaluations in the front seat of the TU-2S. Required items for U-2 instrument evaluations are listed in paragraph **2.2** and **Table 2.1**.

1.3.3. To complete Qualification and Mission evaluations all required areas must be successfully accomplished. Required areas are shown in **Table 2.1**. When conditions such as equipment malfunction, operational requirements, or weather preclude evaluation of a particular event in-flight, it may be evaluated by an alternate method and will be documented in the Additional Comments portion of the AF Form 8, **Certificate of Aircrew Qualification**.

1.3.4. Given the unique demands of the pressure suit and high altitude environment, the Mission Evaluation is normally flown separately from the Qualification Evaluation. The evaluatee has the option of completing a combined Qualification/Mission Evaluation during the Mission Evaluation. If the evaluatee wishes to take this option, it must be approved by the evaluatee's Squadron CC or DO and briefed in advance (before takeoff) with the SEFE. To receive credit, all required items must be accomplished. At any point in the flight, the evaluatee may elect not to complete the Qualification portion; however, all items already accomplished must be graded by the SEFE.

1.3.5. The SEFE will brief the evaluatee on the purpose of the evaluation and how it will be conducted prior to flight. The evaluatee will accomplish all mission planning for Qualification Evaluations. For Mission Evaluations, the mission planner will provide a mission kit for study and review.

Do not grade the individual for those products computed by others. The individual is responsible to ensure the data used in the aircraft is accurate and effective for mission accomplishment. Higher Headquarters (HHQ) flight examiners (and unit flight examiners as determined locally) will be furnished a copy of necessary charts, flight logs, and any additional items they deem necessary.

1.3.6. For non-instructor evaluations in the TU-2S, the SEFE will occupy the rear cockpit. For Instructor Pilot (IP) evaluations, the SEFE will occupy the front cockpit.

1.3.7. Ground based video recorders and Global Positioning System (GPS) data will be used to reconstruct and evaluate the mission.

1.3.8. The SEFE will thoroughly debrief all aspects of the flight. This debrief will include the evaluatee's overall rating, specific deviations, area grades assigned (if other than qualified) and any required additional training.

#### 1.4. Grading Instructions:

1.4.1. Standards and performance parameters are contained in AFI 11-202V2 and this instruction. The following criteria will be applied during all phases of flight except instrument finals and as noted for specific events:

**Table 1.1. General Criteria.**

Standards/Performance Level	Criteria
Q	Altitude +/- 200 feet
	Airspeed +/- 10 knots
	Course +/- 5 degrees/3 NM
	TACAN Arc +/- 2 NM
Q-	Altitude +/- 300 feet
	Airspeed +/- 15 knots
	Course +/- 10 degrees/5 NM
	TACAN Arc +/- 3 NM
U	Exceeded Q- limits

1.4.2. The flight examiner will compare the evaluatee's performance for each area with the standards provided and assign an appropriate grade for each area. The overall flight evaluation grade is derived from the area grades and is based on a composite of the observed events and tasks IAW AFI 11-202V2 and this instruction. If the evaluatee receives an unqualified area grade in any of the critical areas identified by this volume, an overall unqualified grade will be assigned.

**1.5. Emergency Procedures Evaluation (EPE).** The EPE will be conducted as a Ground Phase requisite of the Qualification Evaluation, Mission Evaluation, and Instrument Evaluation. The EPE for the Qualification and Mission Evaluations should be conducted in the Cockpit Procedures Trainer (CPT) when possible. If the CPT is not available, the EPE may be oral.

1.5.1. The following items will be included on all EPEs:

1.5.1.1. **Aircraft General Knowledge.**

1.5.1.2. **Emergency Procedures.** For the Qualification Evaluation, evaluate a minimum of two emergency procedures per phase of flight (i.e., pre-takeoff, takeoff, cruise, and landing) to include all BOLDFACE items.

1.5.1.3. **Instrument Unusual Attitude Recoveries.** In-flight unusual attitude recoveries will not be evaluated in the U-2. Unusual attitude recoveries will be evaluated during the Qualification EPE. This "alternate" means of evaluation need not be documented on the AF Form 8.

1.5.2. The following items should be included on the Emergency Procedures Evaluation given as a requisite to the Mission Evaluation. Mission Evaluation scenarios should be tailored to unit tasking and include areas not normally evaluated in flight.

1.5.2.1. Sensor System Operation.

1.5.2.2. Electronic Counter Measures (ECM)/Radar Warning Receiver (RWR).

1.5.3. Evaluatees receiving an overall unqualified grade will be placed in supervised status until recommended additional training is completed and/or a reevaluation is successfully accomplished. Evaluatees receiving an overall unqualified grade because of an unsatisfactory Bold Face Emergency/Critical Action Procedure accomplishment will not be permitted to fly in their aircrew position until a successful reevaluation is accomplished. On EPEs graded as qualified with additional training, the SEFE will indicate whether the additional training need be accomplished before the next flight. Additional training and reevaluations will be accomplished IAW AFI 11-202V2.

**1.6. Documentation of Sensor Employment Results.** Sensor employment results, to the extent that they are unclassified, should be documented in the Mission Description section of the AF Form 8 for Mission Evaluations when possible. When classification or other circumstances prevent such documentation, a statement describing overall mission effectiveness should be included.

**1.7. Records Disposition.** Records will be disposed of IAW AFMAN 37-139, *Records Disposition Schedule*, Table 13-10.

## Chapter 2

### EVALUATION REQUIREMENTS

#### 2.1. General:

2.1.1. Evaluation requirements for Qualification and Mission Evaluations listed in this chapter are generic. Specific areas required are listed in **Table 2.1**. Prior to the mission, the flight examiner will ensure the evaluatee understands which areas will be evaluated. The criteria in **Table 3.1** will be used to evaluate the mission.

2.1.2. Areas indicated with an "R" are required items for that evaluation. A required area is a specific area that must be evaluated to complete the evaluation. All required areas must be included in the flight evaluation profile. However, if it is impossible to accomplish a required area in-flight, the SEFE may elect to evaluate the area by an alternate method (e.g., CPT, verbally, etc.), in order to complete the evaluation. If the SEFE determines the required item cannot be adequately evaluated by an alternate method, the evaluatee will require an additional flight to complete the evaluation.

**2.2. Qualification Evaluation.** Due to the limited numbers of U-2 aircraft and the majority of U-2 pilots participating in the T-38 CTP, instrument evaluation requirements are normally completed in conjunction with the T-38 Qualification/Instrument Evaluation. This requires the U-2 Qualification Evaluation be administered as a separate event. To the maximum extent possible, instrument evaluations will include approaches at airfields other than home or deployed locations.

2.2.1. The following items are requisites for initial and recurring evaluations.

2.2.1.1. Qualification Exam (Closed Book).

2.2.1.2. Bold Face Exam.

2.2.1.3. Qualification Exam (Open Book).

2.2.1.4. EPE.

2.2.2. The following additional instrument requisites apply for an annual instrument qualification.

2.2.2.1. Instrument Refresher Course (IRC) Training IAW AFMAN 11-210, *Instrument Refresher Course (IRC) Program*.

2.2.2.2. Instrument Refresher Course (IRC) examination.

2.2.3. On an initial TU-2S instructor evaluation, the evaluatee may update the qualification expiration date if requisites are accomplished IAW AFI 11-202V2. For those pilots taking a Qualification Evaluation in the TU-2S, a mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the evaluation.

**2.3. Mission Evaluation.** Scenarios that represent unit Designed Operational Capability (DOC) statement tasking and resemble operational missions satisfy the requirements of this evaluation. Evaluations during exercises or deployments are permitted.

2.3.1. A handheld GPS will be used to reconstruct and evaluate the mission.

2.3.2. Evaluations flown from the home station, profiles resembling operational missions, e.g. domestic imagery collections, are encouraged when available. If such a mission is not available, an INS Orbit Exercise will be planned and flown to simulate an actual operational mission. This mission will include a timing exercise, orbit change, threat reaction and file transfer. Approximately one half hour of dead reckoning (DR) navigation will be scheduled.

## **2.4. Instructor Evaluations:**

2.4.1. All pilots selected for instructor duty must be evaluated to determine their judgment, technical knowledge, instructor ability (including error analysis of student activity), and use of grading documents as well as flying proficiency.

2.4.2. Instructors must demonstrate timely, effective and efficient instruction to a student (or qualified individual acting as a student). The evaluator may require the evaluatee to present verbal explanations of equipment operations, procedures, and techniques. Evaluators must exercise sound judgment to ensure oral questions and instructions are clear, concise, pertinent to the individual's crew duties, and do not interfere with normal mission accomplishment. The evaluator may forego additional demonstration or instruction based on time available and other factors.

2.4.3. For scheduled Instructor Evaluations, an evaluator who desires a critique of areas not covered in the evaluatee's prebrief will allow the evaluatee sufficient time to prepare the critique. For Higher Headquarters (HHQ) Standardization/Evaluation (Stan/Eval) administered evaluations, the evaluator will provide the evaluatee a performance critique as soon as possible following the evaluatee's critique.

2.4.4. The initial evaluation for single-seat U-2S (Phase II) instructors is administered in the mobile vehicle. Recurring evaluations in the mobile vehicle are not required as long as IP duties are sampled on recurring Qualification and Mission Evaluations.

2.4.5. The initial evaluation for two-seat TU-2S (Phase III) instructors is administered in the TU-2S. This evaluation will include satisfactory demonstration of overhead, straight-in, and emergency patterns and landings performed from the rear cockpit. IP duties will be sampled on recurring Qualification Evaluations in the TU-2S (to include rear-cockpit patterns and landings) and on Mission Evaluations (normally flown in the U-2S).

2.4.6. An instructor receiving an area grade of U or Q- with additional training in any instructor area will receive an overall Qual Level 3 for the Instructor Evaluation.

2.4.7. An instructor receiving an area grade of U or Q- with additional training in any grading area may not perform instructor duties until additional training and/or a successful re-evaluation is complete. This restriction is placed in the comments and YES is marked in the "restrictions" block on the AF Form 8.

2.4.8. On an initial TU-2S instructor evaluation, the evaluatee may update the qualification expiration date if requisites are accomplished IAW AFI 11-202V2. For those pilots taking a Qualification Evaluation in the TU-2S, a mission flown according to instrument flight rules (to the maximum extent practical) best fulfills the objective of the evaluation.

**2.5. Formal Course Evaluation.** Syllabus evaluations will be flown according to syllabus profile guidelines (if stated) or on a profile developed from syllabus training objectives. To complete the evaluation, formal course guidelines may be modified, based on local operating considerations or FE judgment. Syl-

labus tasks not addressed in **Chapter 3** will be evaluated using criterion reference objectives (CRO) from the appropriate syllabus.

**2.6. Required Evaluation Areas.** Grade only those areas observed or recorded.

**Table 2.1. Table of Required Areas.**

AREA	NOTES	TITLE	QUALIFICATION EVALUATION	MISSION EVAL- UATION
<b>GENERAL</b>				
1		Mission Planning	R*	R
2		Briefing	R	R
3		Ground Operations	R	R
4	(CRITICAL)	Takeoff	R	R
5		Departure	R	R
6		Level-off	R	R
7		Cruise		R
8		In-flight Checks	R	R
9		Equipment Operation	R	R
10		Comm/IFF/ SIF	R	R
11		Crew Coordination	R	R
12		Normal VFR Pattern/ Approach	R	
13	(CRITICAL) 1	Landings	R	R
14		Go-around		
15	(CRITICAL)	Emergency Patterns	R	
16		Knowledge	R	R
17	(CRITICAL)	Airmanship	R	R
18	(CRITICAL)	Safety	R	R
19	(CRITICAL)	Aircrew Discipline	R	R
20	2	Flight Characteristics Dem- onstration	IPT**	
21	2	Approach to Stall	IPT	
22	2	High Speed Taxi Demo	IPT	
23		Instructor Performance	IP***	IP
<b>INSTRUMENT</b>				
24	3	Holding	Non-CTP*****	



AREA	NOTES	TITLE	QUALIFICATION EVALUATION	MISSION EVAL- UATION
25	3	Instrument Penetration or Enroute Descent	Non-CTP	
26	3	Non-precision Approach	Non-CTP	
27	3, 4	Precision Approach	Non-CTP	
28	3	Missed Approach/Climbout	Non-CTP	
29	3	Circling/Side-step Approach		
30		Instrument Cross Check	Non-CTP	
<b>MISSION</b>				
31		Photo Flight Line (PFL)		
32		DR Navigation		R
33		INS Orbit Exercise		R
34		Sensor Operation		R
<b>Notes:</b> 1. For Qualification Evaluations, landings are required from both normal and no-flap patterns. One of these landings must be made no-voice. 2. Required on initial IPT evaluations only. 3. For TU-2S instructor evaluations, a sampling of instrument approaches and procedures is desired. 4. Both a PAR and an ILS must be evaluated if equipment and facilities are available. However, if facilities or equipment are not available, the flight evaluation may be completed as long as one precision approach is flown. Document on the AF Form 8 if only one precision approach is flown. * "R" indicates areas required for each evaluation. ** "IPT" indicates additional areas required for TU-2S instructors. *** "IP" indicates additional areas required for all instructors. **** "Non-CTP" indicates instrument items required for non-CTP participants.				

## Chapter 3

### PILOT EVALUATION CRITERIA

**3.1. General.** This chapter consists of criteria established by experience, policies, and procedures set forth in the flight manuals and other governing directives. These criteria ensure the most objective and standardized evaluations. Evaluators must realize these grading criteria cannot cover every situation. Overall performance ratings combine in-flight and ground requisite performances tempered by sound evaluator judgment.

#### **3.2. Evaluation Criteria:**

**Table 3.1. Table of Evaluation Criteria.**

<b>GRADE</b>	<b>CRITERIA</b>
<b><i>AREA 1--MISSION PLANNING</i></b>	
<b>1A. Publications.</b>	
<b>Q</b>	Assigned flight manual publications were current, and contained only minor deviations, omissions, and/or errors, and usable for any of the unit's combat tasks.
<b>Q-</b>	Assigned flight manual publications contained deviations, omissions, and/or errors; however, contained everything necessary to effectively accomplish the mission and did not compromise safety of flight.
<b>U</b>	Not up to "Q-" standards.
<b>1B. Mission Preparation.</b>	
<b>Q</b>	Developed a sound plan to accomplish the mission. Checked all factors applicable to flight--for example, weather, NOTAMS, alternate airfields, flight logs, performance data, fuel requirements, maps, etc.--in accordance with applicable directives. Aware of alternatives available if flight could not be completed as planned and displayed sound operational risk management.
<b>Q-</b>	Same as above, except minor deviations, errors or omissions that did not detract from mission effectiveness. Knowledge of performance capabilities or approved operating procedures and rules marginal in some areas.
<b>U</b>	Major errors, omissions or deviations that would preclude safe and effective mission accomplishment. Faulty knowledge of operating data or procedures. Did not sign off FCIF prior to flight.
<b><i>AREA 2--BRIEFING</i></b>	
<b>2A. Organization.</b>	
<b>Q</b>	Well organized and presented in a logical sequence. Concluded briefing in time to allow for preflight of personal equipment and aircraft.
<b>Q-</b>	Events out of sequence, hard to follow, some redundancy.
<b>U</b>	Disorganized. Illogical sequence during presentation caused confusion. Did not allow time for preflight of personal equipment and aircraft.
<b>2B. Presentation.</b>	
<b>Q</b>	Presented briefing in a professional manner. Effectively used training aids. Pilot and/or mobile officer clearly understood mission requirements.
<b>Q-</b>	Did not make effective use of available training aids. Dwelled on non-essential mission items.
<b>U</b>	Did not use training aids. Presentation created doubts or confusion.
<b>2C. Mission Objectives.</b>	
<b>Q</b>	Established objectives for the mission. Presented all training events and effectively addressed techniques for accomplishing the mission.

GRADE	CRITERIA
Q-	Objectives undefined and poorly quantified. Omitted minor training events. Limited discussion of techniques.
U	Did not establish objectives for the mission. Omitted major training events or did not discuss techniques.
<b>AREA 3--GROUND OPERATIONS</b>	
<b>3A. Pre-Takeoff.</b>	
Q	Established and adhered to station, start engine, taxi, and take-off times to assure thorough preflight, check of personal equipment, briefing, etc. Performed all checks and procedures prior to takeoff in accordance with approved checklists and applicable directives.
Q-	Same as above except for minor procedural deviations that did not detract from mission effectiveness.
U	Omitted major items of the appropriate checklist. Major deviations in procedure that would preclude safe mission accomplishment. Failed to accurately determine readiness of aircraft for flight. Errors directly contributed to a late takeoff that degraded the mission or made it non-effective.
<b>3B. After Landing.</b>	
Q	Appropriate after-landing checks and aircraft taxi procedures accomplished in accordance with the flight manual and applicable directives. Completed all required forms accurately.
Q-	Same as qualified except some deviations or omissions noted in performance of after-landing check and/or aircraft taxi procedures. Safety was not jeopardized. Required forms completed with minor deviations, omissions, or errors.
U	Major deviations, omissions, or errors were made in performance of after-landing check or aircraft taxi procedures that could have jeopardized safety. Data recorded inaccurately or omitted.
<b>AREA 4--TAKEOFF (CRITICAL)</b>	
Q	Smooth aircraft control throughout takeoff. Performed takeoff in accordance with flight manual procedures.
Q-	Minor flight manual procedural or technique deviations. Some under or over control at liftoff.
U	Lift-off potentially dangerous. Exceeded aircraft or systems limitations. Failed to establish proper climb attitude. Over-controlled aircraft resulting in excessive deviations from intended flight path.
<b>AREA 5--DEPARTURE</b>	
Q	Performed departure as published or directed and complied with all restrictions.
Q-	Minor deviations in airspeed and navigation occurred during completion of departure
U	Failed to comply with published or directed departure instructions.

GRADE	CRITERIA
<b>AREA 6--LEVEL-OFF</b>	
<b>Q</b>	Leveled off smoothly. Promptly established proper cruise airspeed.
<b>Q-</b>	Level-off was erratic. Slow in establishing proper cruise airspeed.
<b>U</b>	Level-off was erratic. Exceeded Q- limits. Excessive delay or failed to establish proper cruise airspeed. Failed to reset altimeter, if required.
<b>AREA 7--CRUISE</b>	
<b>Q</b>	Demonstrated satisfactory capability to navigate using all available means. Properly recorded all flight data on the "green card." Ensured nav aids were properly tuned, identified, and monitored. Complied with clearance instructions. Aware of position at all times. Remained within the confines of assigned airspace. Fix-to-Fix +/- 2NM.
<b>Q-</b>	Minor errors in procedures or use of navigation equipment. Minor omissions or errors on "green card." Some deviation in tuning, identifying, and monitoring nav aids. Slow to comply with clearance instructions. Had some difficulty in establishing exact position and course. Fix-to-Fix +/-4NM.
<b>U</b>	Major errors in procedures or use of navigation equipment. Could not establish position. Did not remain within the confines of assigned airspace. Major omissions or errors on "green card."
<b>AREA 8--IN-FLIGHT CHECKS</b>	
<b>Q</b>	Performed all in-flight checks as required.
<b>Q-</b>	Same as qualified, except for minor deviations, errors, or omissions during checks. Did not detract from mission accomplishment.
<b>U</b>	Major deviations, errors, or omissions that detracted from mission accomplishment. Did not perform in-flight checks or monitor systems to the degree that an emergency condition would have developed if allowed to continue uncorrected.
<b>AREA 9--EQUIPMENT OPERATION</b>	
This area includes applicable aircraft systems operation as prescribed in all flight manuals and other governing directives. Also include the individual's system knowledge and proper operating procedures, analysis of equipment malfunctions, and use of proper corrective action.	
<b>Q</b>	Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions with consistent mission results. No damage or significant system degradation resulted from operator inputs or lack of knowledge.
<b>Q-</b>	Operated equipment with deviations, omissions, or errors from procedures required by the flight manual or governing directives. Equipment malfunctions were consistently ignored, analyzed in error, or caused by erroneous data insertion or faulty operator techniques. The level of performance or knowledge was the minimum acceptable and warrants assigned study and/or additional training. Did not damage equipment.

GRADE	CRITERIA
U	Not up to "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor operational techniques or procedures.
<b>AREA 10--COMM/IFF/SIF</b>	
Q	Complete knowledge of and compliance with correct Comm/IFF/SIF procedures. Transmissions concise with proper terminology. Complied with and acknowledged all required instructions.
Q-	Occasional deviations from correct procedures that required retransmissions or resetting codes. Slow in initiating required actions. Transmissions contained extraneous matter, were not in proper sequence, or used nonstandard terminology.
U	Incorrect procedures or poor performance precluded mission accomplishment or jeopardized safety.
<b>AREA 11--CREW COORDINATION (TU-2S or with Mobile)</b>	
Q	Effectively coordinated with other crewmember or mobile without misunderstanding. Effective use of Cockpit Resource Management (CRM). See AFI 11-290, <i>Cockpit/Crew Resource Management Training Program</i> , and use AF Form 4031, <b>CRM Skills Criteria Training/Evaluation</b> , as a reference.
Q-	Coordinated with other crewmember or mobile with minor exceptions. Intra-crew communications were not clear or concise. CRM was the minimum acceptable.
U	Breakdown in coordination with other crewmember or mobile precluded mission accomplishment or jeopardized safety. CRM was lacking to the extent the mission accomplishment was severely degraded.
<b>AREA 12--NORMAL VFR PATTERN OR APPROACH</b>	
Normal VFR patterns and approaches begin when the aircraft arrives at Initial, initiates a closed pattern, or begins a visual final approach. They are graded up to the point that power would normally be reduced for landing, or a go-around is begun.	
Q	Performed patterns and approaches IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft control was smooth and positive. Accurate runway alignment. Maintained proper airspeed +10/-3 knots
Q-	Performed patterns or approaches with minor deviations to procedures and techniques outlined in the flight manual, operational procedures and local directives. Aircraft control was not consistently smooth, but safe. Variations in runway alignment. Slow to correct to proper airspeed. Airspeed +15/-5 knots
U	Approaches not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Erratic aircraft control. Used bank angles greater than 30 degrees to fly pattern. Large deviations in runway alignment. Exceeded Q parameters
<b>AREA 13--LANDINGS (CRITICAL)</b>	
The following evaluation criteria apply to minimum-run landings as well.	
<b>13A. Landings with Altitude Calls.</b>	

GRADE	CRITERIA
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Touchdown point was in the first third of the runway.
Q-	Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Touchdown attitude slightly main-gear first. Small amount of drift or crab that did not affect aircraft control. Skips and bounces did not exceed 2 feet. Touchdown point would have been beyond the first third of the runway if go-around not initiated.
U	Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Drift, crab, skips and bounces exceeded Q- criteria.
<b>13B. Landings without Altitude Calls (No Voice).</b>	
Q	Performed landings IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Skips did not exceed 2 feet. Touchdown point was in the first third of the runway.
Q-	Performed landings with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Small amount of drift or crab that did not affect aircraft control. Skips and bounces did not exceed 2 feet. Touchdown point would have been beyond the first third of the runway if go-around not initiated.
U	Landing not performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Aircraft landed main-gear first and entered a Pilot Induced Oscillation (PIO). Drift, crab, skips and bounces exceeded Q- criteria.
<b>AREA 14--GO-AROUND</b>	
Q	Initiated and performed go-around promptly in accordance with flight manual and operational procedures and directives.
Q-	Slow to initiate go-around. Made minor procedural errors.
U	Did not self-initiate go-around when appropriate or directed. Techniques unsafe or applied incorrect procedures. Erratic aircraft control. Large deviations in runway alignment.
<b>AREA 15--EMERGENCY PATTERNS AND APPROACHES (CRITICAL)</b>	
Ensure that all sub-areas are evaluated to include Simulated Flameout (SFO) with and without flaps. Additional parameters associated with specific emergency patterns are listed in their sub-areas.	
Q	Used sound judgment. Configured at the appropriate position and altitude. Flew final based on recommended procedures, airspeed, and glidepath. Smooth, positive control of aircraft. Could have landed safely. Set parameters for ejection if necessary. Properly assessed impact of local conditions and tailored planned profile if necessary.

GRADE	CRITERIA
<b>Q-</b>	Safety not compromised. Configured at a position and altitude that allowed for a safe approach. Could have landed safely with the following deviations: (1) Minor deviations from recommended procedures, airspeed, and altitudes. (2) Unnecessary maneuvering due to minor errors in planning or judgment.
<b>U</b>	Judgment unsafe. Major deviations from recommended procedures, airspeed, and altitudes. Required excessive maneuvering due to inadequate planning or judgment. Could not have landed safely.
<b>15A. Simulated Flameout (SFO)/Precautionary Pattern.</b>	
SFOs are graded from high key down to 10 feet. For the purpose of evaluating energy management, do not plan on using the spoilers until reaching 10 feet. Use of spoilers is authorized to ensure arrival at 10 feet within parameters. The evaluator may request to see the maneuver repeated without the use of spoilers.	
<b>Q</b>	Airspeed +10/-2 kts. Arrived at 10 feet between the threshold and the first 1/3 of runway available. Smoothly maneuvered to target zone and in a safe position to land upon reaching 10 feet.
<b>Q-</b>	Airspeed +15/-5 knots. Crossed threshold below 10 feet. Arrived at 10 feet between 1/3 and 1/2 of runway available. Unable to successfully perform the maneuver to Q standards without relying on the use of spoilers.
<b>U</b>	Failure to meet Q- parameters or excessive maneuvering required to hit target zone, due to misjudgment of wind or energy state.
<b>15B. No-Flap Pattern</b>	
The evaluator may request to sample another no-flap pattern flown without spoilers if spoilers are required to correct for a poorly planned or flown no-flap pattern. Environmental conditions may require the use of spoilers to correctly fly the pattern.	
<b>Q</b>	Cross the threshold with airspeed +5/-0 knots.
<b>Q-</b>	Cross the threshold with airspeed +10/-1 knots.
<b>U</b>	Failure to meet Q- parameters
<b>AREA 16--KNOWLEDGE (Ensure that all applicable sub-areas are evaluated.)</b>	
<b>16A. Aircraft General.</b>	
<b>Q</b>	Thorough knowledge of aircraft systems, limitations, and performance characteristics.
<b>Q-</b>	Knowledge of aircraft systems, limitations, and performance characteristics sufficient to perform the mission safely. Deficiencies either in depth of knowledge or comprehension.
<b>U</b>	Unsatisfactory knowledge of aircraft systems, limitations, or performance characteristics.
<b>16B. Emergency Procedures.</b>	
<b>Q</b>	Correct, immediate response to Bold Face and non-Bold Face emergency situations. Effectively used checklist or flight manual.



GRADE	CRITERIA
Q-	Response to Bold Face emergencies 100% correct. Response to certain areas of non-Bold Face emergencies or follow-on steps to Bold Face procedures was slow or confused. Used the checklist or flight manual when appropriate, but slow to locate required data.
U	Incorrect response for Bold Face emergency. Unable to analyze problems or take corrective action. Did not use checklist or flight manual, or lacks acceptable familiarity with their arrangement or contents.
<b>16C. Flight Rules and Procedures.</b>	
Q	Thorough knowledge of flight rules and procedures. Thorough knowledge of local area procedures.
Q-	Deficiencies in depth of knowledge. Limited knowledge of local area procedures.
U	Inadequate knowledge of flight rules and procedures. Inadequate knowledge of local area procedures.
<b>AREA 17--AIRMANSHIP (CRITICAL)</b>	
Q	Executed the assigned mission in a timely, efficient manner. Conducted the flight with a sense of understanding and comprehension.
U	Decisions or lack thereof resulted in failure to accomplish the assigned mission. Demonstrated poor judgment to the extent that safety could have been compromised.
<b>AREA 18--SAFETY (CRITICAL)</b>	
Q	Aware of and complied with all safety factors required for safe aircraft operations and conduct of the mission.
U	Was not aware of or did not comply with all safety factors required for safe operations or conduct of the mission. Did not adequately clear. Operated the aircraft in a dangerous manner. Failed to correctly accomplish Bold Face procedures.
<b>AREA 19--AIRCREW DISCIPLINE (CRITICAL)</b>	
Q	Demonstrated strict professional flight and crew discipline throughout all phases of the mission.
U	Failed to exhibit strict flight or crew discipline. Violated or ignored rules or regulations.
<b>AREA 20--FLIGHT CHARACTERISTICS DEMONSTRATION</b>	
Q	Aircraft control during maneuvering was positive and smooth. Maneuvering performed IAW techniques and procedures outlined in the flight manual, operational procedures, and local directives.
Q-	Aircraft control during maneuvers not always smooth and positive, but adequate. Minor procedural deviations.
U	Aircraft control erratic. Aircraft handling caused unsatisfactory accomplishment of maneuvers. Temporary loss of aircraft control. Exceeded Q- criteria.
<b>AREA 21--APPROACH TO STALL</b>	

GRADE	CRITERIA
<b>Q</b>	Accurate recognition of approach to stall indications. Smooth, positive recovery to level flight with minimal altitude loss. Used correct procedures.
<b>Q-</b>	Slow to recognize and recover from stall indications. Correct recovery procedures used.
<b>U</b>	Unable to recognize approach to stall indications. Incorrect recovery procedures used or allowed aircraft to enter a fully stalled condition. Excessive altitude lost during recovery.
<b>AREA 22--HIGH SPEED TAXI DEMONSTRATION</b>	
<b>Q</b>	Performed demonstration IAW procedures and techniques outlined in the flight manual, operational procedures, local directives, and the appropriate syllabus.
<b>Q-</b>	Performed demonstration with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, local directives, and the appropriate syllabus.
<b>U</b>	Does not meet Q- criteria.
<b>AREA 23--INSTRUCTOR PERFORMANCE</b>	
<b>23A. Briefing and Debriefing.</b>	
<b>Q</b>	Presented a comprehensive, instructional briefing and debriefing that encompassed all mission events. Made use of available training aids. Analyzed all events and maneuvers. Clearly defined objectives. Exercised operational risk management.
<b>Q-</b>	Minor errors or omissions in briefing, debriefing, or mission critique. Occasionally unclear in analysis of events or maneuvers.
<b>U</b>	Major errors or omissions in briefing or debriefing. Analysis of events or maneuvers was incomplete, inaccurate, or confusing. Did not use available training aids or reference material effectively. Briefing or debriefing below the caliber of that expected of instructors. Failed to define mission objectives.
<b>23B. Demonstration of Maneuvers.</b>	
<b>Q</b>	Performed required maneuvers within prescribed parameters. Provided concise, meaningful in-flight commentary. Demonstrated sound instructor proficiency.
<b>Q-</b>	Performed required maneuvers with minor deviations from prescribed parameters. In-flight commentary was sometimes unclear.
<b>U</b>	Was unable to properly perform required maneuvers. Made major procedural errors. Did not provide in-flight commentary. Demonstrated below-average instructor proficiency.
<b>23C. Instructor Knowledge.</b>	
<b>Q</b>	Demonstrated in-depth knowledge of procedures, requirements, aircraft systems and performance characteristics, mission, and tactics beyond that expected of non-instructors.
<b>Q-</b>	Deficiencies noted in the depth of knowledge, comprehension of procedures, requirements, aircraft systems and performance characteristics, mission, or tactics.

GRADE	CRITERIA
U	Unfamiliar with procedures, requirements, aircraft systems & performance characteristics, mission, or tactics. Lack of knowledge in certain areas seriously detracted from instructor effectiveness.
<b>23D. Training &amp; Evaluation Forms Preparation (if applicable).</b>	
Q	Completed appropriate training records accurately. Adequately assessed and recorded performance. Comments were clear and pertinent.
Q-	Minor errors or omissions in training and evaluation records. Comments were incomplete or slightly unclear.
U	Did not complete required forms or records. Comments were invalid, unclear, or did not accurately document performance.
<b>23E. Ability to Instruct.</b>	
Q	Demonstrated sound instructor ability. Clearly defined all mission requirements and any required additional training or corrective action. Instruction and evaluation was accurate, effective, and timely. Was completely aware of aircraft and mission situation at all times.
Q-	Problems in communication or analysis degraded effectiveness of instruction or evaluation.
U	Demonstrated inadequate ability to instruct or evaluate. Unable to perform, teach, or assess techniques, procedures, systems use, or tactics. Did not remain aware of aircraft and mission situation at all times.
<b>AREA 24--HOLDING</b>	
Q	Entry and holding procedures IAW applicable directives. Pattern limit exceeded by not more than: -- TACAN +/- 2 NM
Q-	Pattern limit exceeded by not more than: -- TACAN +/- 3 NM
U	Exceeded criteria for Q- or holding pattern limits.
<b>AREA 25--INSTRUMENT PENETRATION OR ENROUTE DESCENT</b>	
Q	Performed the penetration or enroute descent and approach as published or directed and IAW applicable flight manuals. Complied with all restrictions. Made smooth and timely corrections.
Q-	Performed the penetration or enroute descent and approach with minor deviations. Complied with all restrictions. Slow to make corrections.
U	Performed the penetration or enroute descent and approach with major deviations. Erratic corrections.
<b>AREA 26--NON-PRECISION APPROACH</b>	

GRADE	CRITERIA
<b>Q</b>	<p>Adhered to all published or directed procedures and restrictions. Used appropriate descent rate to arrive at MDA at or before VDP/MAP. Position would have permitted a safe landing.</p> <ul style="list-style-type: none"> <li>-- Airspeed +10/-5 kts</li> <li>-- Heading <math>\pm 5</math> degrees (ASR)</li> <li>-- Course <math>\pm 5</math> degrees at MAP</li> <li>-- Localizer less than one dot deflection</li> <li>-- Minimum Descent Altitude +100/-25 feet</li> </ul>
<b>Q-</b>	<p>Performed approach with minor deviations. Arrived at MDA at or before the MAP, but past the VDP. Position would have permitted a safe landing.</p> <ul style="list-style-type: none"> <li>-- Airspeed +15/-10 kts</li> <li>-- Heading <math>\pm 10</math> degrees (ASR)</li> <li>-- Course <math>\pm 10</math> degrees at MAP</li> <li>-- Localizer within two dot deflection</li> <li>-- Minimum Descent Altitude +150/-50 feet.</li> </ul> <p><b>NOTE:</b> The -50 foot tolerance applies only to momentary deviations.</p>
<b>U</b>	<p>Did not comply with published or directed procedures or restrictions. Exceeded Q-limits. Maintained steady-state flight below the MDA. Could not land safely from the approach.</p>
<b>AREA 27--PRECISION APPROACH</b>	
<b>Q</b>	<p>Performed procedures as directed and IAW applicable flight manual. Smooth and timely response to controller's instructions. Complied with decision height. Position would have permitted a safe landing. Maintained glide path with only minor deviations.</p> <ul style="list-style-type: none"> <li>-- Airspeed +10/-5 kts</li> <li>-- PAR: Heading within 5 degrees of controller's instructions</li> <li>-- ILS: Glide Slope/Azimuth within one dot</li> </ul>
<b>Q-</b>	<p>Performed procedures with minor deviations. Slow to respond to controller's instructions. Position would have permitted a safe landing. Improper glide path control. Initiated appropriate action at Decision Height +/- 50 feet.</p> <ul style="list-style-type: none"> <li>-- Airspeed +15/-10 kts</li> <li>-- PAR: Heading within 10 degrees of controller's instructions.</li> <li>-- ILS: Glide Slope within one dot low to two dots high; Azimuth within two dots.</li> </ul>
<b>U</b>	<p>Performed procedures with major deviations. Erratic corrections. Did not respond to controller's instructions. Erratic glide path control. Did not comply with decision height or position would not have permitted a safe landing.</p>
<b>AREA 28--MISSED APPROACH OR CLIMB-OUT</b>	
<b>Q</b>	<p>Executed missed-approach or climb-out as published or directed. Completed all procedures IAW applicable flight manual.</p>

GRADE	CRITERIA
Q-	Executed missed approach or climb-out with minor deviations. Slow to comply with published procedures, controller's instructions, or flight manual procedures.
U	Executed missed approach or climb-out with major deviations, or did not comply with applicable directives.
<b>AREA 29--CIRCLING OR SIDE-STEP APPROACH</b>	
Q	Performed circling or side-step approach in accordance with procedures outlined in the flight manual and directives. Aircraft control was positive and smooth. Proper runway alignment. Airspeed: +10/-5 knots.
Q-	Performed circling or side-step approach with minor deviations to procedures outlined in the flight manual and directives. Aircraft control was not consistently smooth, but safe. Variations in runway alignment, but go-around not required. Airspeed: +20/-5 knots.
U	Circling or side-step approach not performed in accordance with procedures outlined in the flight manual and directives. Erratic aircraft control. Large deviations in runway alignment required go-around.
<b>AREA 30--INSTRUMENT CROSS-CHECK</b>	
Q	Effective instrument cross-check. Smooth and positive aircraft control throughout the flight. Met "Q" criteria listed in General Criteria, applicable special events, or instrument final approaches.
Q-	Slow instrument cross-check. Aircraft control occasionally abrupt to compensate for recognition of errors. Met "Q-" criteria listed in General Criteria, applicable special events, or instrument final approaches.
U	Inadequate instrument cross-check. Erratic aircraft control. Exceeded Q- limits.
<b>AREA 31--PHOTO FLIGHT LINE (PFL).</b>	
A minimum of 60 minutes of PFL should be scheduled and 30 minutes of scorable PFL is required to complete evaluation. Pilots are not charged with deviations exceeding 3 NM when the undercast is 4/10 or more for a distance of 20 NM before or during a PFL. If undercast is 4/10 or more, pilots should continue to navigate along the route using all means available. If weather conditions improve to less than 4/10 undercast, three minutes is allowed to establish position and correct back to PFL centerline using approximately a 30 degree correction.	
Q	Performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. 90% of scored positions were within 3 NM of PFL track.
Q-	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Between 80% and 90% of scored positions were within 3 NM of PFL track.
U	Did not meet Q- criteria.
<b>AREA 32--DEAD-RECKONING NAVIGATION.</b>	

GRADE	CRITERIA
<b>Q</b>	Performed IAW procedures and techniques outlined in the flight manual, operational procedures, and local directives. Circular error at end of DR Nav leg did not exceed 14 NM or 2 minutes, whichever is higher.
<b>Q-</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Circular error at end of DR Nav leg did not exceed 20 NM or 3 minutes, whichever is higher.
<b>U</b>	Did not meet Q- criteria.
<b><i>AREA 33--INERTIAL NAVIGATION SYSTEM (INS) ORBIT EXERCISE.</i></b>	
Abnormal mission actions (e.g. timing changes, threat reaction, retrograde, and re-entry procedures) may be introduced during this exercise. The evaluator will coordinate the actions with ARTCC and establish initiation criteria.	
<b>Q</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Met ETA to orbit points within 2 minutes.
<b>Q-</b>	Performed with minor deviations to procedures and techniques outlined in the flight manual, operational procedures, and local directives. Met ETA to orbit points within 3 minutes.
<b>U</b>	Did not meet Q- criteria.
<b><i>AREA 34--SENSOR OPERATION. (See Table 2.1, Note 5)</i></b>	
This area includes applicable aircraft sensor and data link operation as prescribed in all flight manuals and other governing directives. Also includes the individual's system knowledge of proper operating procedures, analysis of equipment malfunctions, and use of proper corrective action.	
<b>Q</b>	Operated equipment according to procedures and checklists contained in the flight manuals and governing directives. Accurately and efficiently analyzed equipment malfunctions with consistent mission results. No damage or significant system degradation resulted from operator inputs or lack of knowledge.
<b>Q-</b>	Operated equipment with deviations, omissions, or errors from procedures required by the flight manual or governing directives. Equipment malfunctions were consistently ignored, analyzed in error, or caused by erroneous data input or faulty operator techniques. The level of performance or knowledge was the minimum acceptable and warrants assigned study or additional training. Did not damage equipment.
<b>U</b>	Not up to "Q-" standards. Damaged equipment. Could not obtain acceptable results due to poor application of procedures or operational techniques.

MARVIN R. ESMOND, Lt General, USAF  
DCS, Air and Space Operations

## Attachment 1

## GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

***References***

DoD 5500.7-R, *Joint Ethics Regulation*

AFTTP 3-1V27, *Tactical Employment--U-2*

AFI 10-704, *Military Deception Program*

AFPD 11-2, *Aircraft Rules and Procedures*

AFI 11-202V1, *Aircrew Training*

AFI 11-202V2, *Aircrew Standardization/Evaluation Program*

AFI 11-202V3, *General Flight Rules*

AFI 11-205, *Aircraft Cockpit and Formation Flight Signals*

AFI 11-207, *Flight Delivery of Fighter Aircraft*

AFI 11-214, *Aircrew, Weapons Director, and Terminal Attack Controller Procedures for Air Operations*

AFMAN 11-217V1, *Instrument Flight Procedures*

AFI 11-218, *Aircraft Operation and Movement on the Ground*

AFPD 11-4, *Aviation Service*

AFI 11-401, *Flight Management*

AFI 11-402, *Aviation and Parachutist Service, Aeronautical Ratings and Badges*

AFI 11-403, *Aerospace Physiological Training Program*

AFI 11-404, *Centrifuge Training for High-G Aircrew*

AFI 13-102, *Air Support Operations Center (ASOC) and Tactical Air Control Party (TACP) Training and Evaluation Procedures*

AFI 13-212V1, *Weapons Ranges*

AFI 13-212V2, *Weapons Range Management*

AFI 13-212V3, *Hazard Methodology and Weapon Safety Footprints*

AFI 14-105, *Unit Intelligence Mission and Responsibilities*

AFI 16-402, *Aerospace Vehicle Programming, Assignment, Distribution, Accounting and Termination*

AFI 32-4001, *Disaster Preparedness Planning and Operations*

AFI 32-4002, *Hazardous Material Emergency Planning and Response Program*

AFI 33-360V1, *Publications Management Program*

AFI 36-2201, *Developing, Managing, and Conducting Training*

AFI 36-2209, *Survival and Code of Conduct Training*

AFPAM 36-2211, *Guide for Management of Air Force Training Systems*

AFI 36-2217, *Munitions Requirements for Aircrew Training*

AFI 36-2226, *Combat Arms Training and Maintenance (CATM) Program*

AFI 36-2238, *Self-Aid and Buddy Care Training*

AFI 11-290, *Cockpit/Crew Resource Management Program*

AFMAN 37-139, *Records Disposition Schedule*

AFI 51-401, *Training and Reporting to Ensure Compliance with the Law of Armed Conflict*

AFI 71-101V1, *Criminal Investigations*

AFI 71-101V2, *Protective Service Matters*

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-301, *Air Force Occupational and Environmental Safety, Fire Prevention and Health (AFOSH) Program*

T.O. 1U-2S-1, *Utility Flight Manual*

### ***Abbreviations and Acronyms***

**AC2ISRC**—Aerospace Command and Control, Intelligence, Surveillance, and Reconnaissance Center

**ACC**—Air Combat Command

**ACC/XOF**—Flight Operations Division

**ACC/XOFR**—ACC/XOF Reconnaissance and Surveillance Team

**ACC/XOFS**—ACC/XOF Standardization Team

**ACCI**—Air Combat Command Instruction

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive

**AFR**—Air Force Regulation

**AFRC**—Air Force Reserve Command

**AFTO**—Air Force Technical Order

**ASR**—Airport Surveillance Radar

**ATD**—Aircrew Training Device

**BAFB, CA**—Beale Air Force Base, California

**CC**—Commander

**CCTS**—Combat Crew Training

**COMM**—Communications

**CRM**—Cockpit Resource Management



**CRO**—Criterion Reference Objectives

**CTP**—Companion Trainer Program

**DEG**—Degree

**DH**—Decision Height

**DO**—Director of Operations

**DR**—Dead Reckoning

**EFC**—Expect Further Clearance

**EP**—Emergency Procedures

**EPE**—Emergency Procedures Evaluation

**ETA**—Estimated Time of Arrival

**EW**—Electronic Warfare

**FCIF**—Flight Crew Information File

**FEF**—Flight Evaluation Folder

**FLT**—Flight

**FTU**—Formal Training Unit

**HF**—High Frequency

**HHQ**—Higher Headquarters

**HQ**—Headquarters

**IAS**—Indicated Airspeed

**IAW**—In accordance with

**IFF**—Identification Friend or Foe

**ILS**—Instrument Landing System

**INS**—Inertial Navigation System

**INSTMT**—Instrument

**INSTR**—Instructor

**IP**—Instructor Pilot

**IPT**—Instructor Pilot TU-2S

**IRC**—Instrument Refresher Course

**KIAS**—Knots Indicated Airspeed

**MAJCOM**—Major Command

**MAP**—Missed Approach Point

**MCOPR**—Major Command Office of Primary Responsibility

**MCR**—Multi-Command Regulation

**MDA**—Minimum Descent Altitude

**MDS**—Mission Design Series

**MQF**—Master Question File

**MR**—Mission Ready

**MSN**—Mission

**N/A**—Not available

**N/N**—No-Notice

**NAF**—Numbered Air Force

**NF**—No-Flap

**NM**—Nautical Mile

**NOTAMS**—Notice to Airmen

**OCR**—Office of Collateral Responsibility

**OG**—Operations Group

**OGV**—Operations Group Standardization/ Evaluation

**OPR**—Office of Primary Responsibility

**P**—Pilot

**PAR**—Precision Approach Radar

**PCS**—Permanent Change of Station

**PFL**—Photo Flight Line

**PIO**—Pilot Induced Oscillation

**Q**—Qualified

**R**—Required

**ROE**—Rules of Engagement

**SAV**—Staff Assistance Visit

**SEFE**—Standardization Evaluation Flight Examiner

**SELO**—Standardization Evaluation Liaison Officer

**SFO**—Simulated Flameout

**SIF**—Selective Identification Feature

**SIM**—Simulator

**SPINS**—Special Instructions

**SQ**—Squadron

**SQB**—Secure Question Bank

**SSAN**—Social Security Administration Number

**STAN/EVAL**—Standardization/Evaluation

**T**—Threshold

**TACAN**—Tactical Air Navigation System

**TDY**—Temporary Duty

**U**—Unqualified

**UHF**—Ultra High Frequency

**US**—United States

**USAF**—United States Air Force

**VDP**—Visual Descent Point

**VFR**—Visual Flight Rule

**VOR**—VHF Omni-range

### *Terms*

**Deviation**—Performing an action not in sequence with current procedures, directives, or instructions. Performing actions out of sequence due to unusual or extenuating circumstances is not considered a deviation. In some cases, momentary deviations may be acceptable. Cumulative momentary deviations will be considered in determining the overall qualification level.

**Error**—Departure from standard procedures. Performing incorrect actions or recording incorrect information.

**Ground Time**—Interval between arrival in the blocks and next takeoff time.

**HHQ Missions**—Missions executed at or above the NAF. HHQ missions include: deployment, redeployment, reconnaissance operations, ORIs, and PDM input/ output. Exercise missions flown in support of HHD exercise, example GREEN FLAG, COPE THUNDER, FLEETEX, etc., are also considered HHQ missions as well as exercise support to classified users.

**Judgment**—The art of relying upon experience, techniques, and procedural information to resolve conflicting navigational data.

**Major**—Detracted from mission accomplishment, adversely affected use of equipment, or violated safety.

**Minor**—Did not detract from mission accomplishment, adversely affect use of equipment, or violate safety.

**Mission**—Movement of aircraft from a designated point of origin to a designated destination as defined by assigned mission identifier, mission nickname, or both in the schedule, mission directive, OPORD, OPLAN, or fragmentary (frag) order.

**Omission**—To leave out a required action.

**Over Water Flight**—Any flight that exceeds power-off gliding distance from land.

**Scheduled Takeoff Time**—Takeoff time as established in the schedule or operations order (OPORD).

**Significant Meteorological Information (SIGMET)**—An area weather advisory issued by an ICAO meteorological office relayed to and broadcast by the applicable ATC agency. SIGMET advisories are issued for tornadoes, lines of thunderstorms, embedded thunderstorms, large hail, severe and extreme turbulence, severe icing, and widespread dust or sand storms. SIGMETs frequently cover a large geographical area and vertical thickness. They are prepared for general aviation and may not consider aircraft type or capability.

**Squadron Supervisor**—Squadron Commander, Operations Officer, Assistant Operations Officers, and selected senior Flight Commanders.

**Notes:**

1. The following qualifiers apply to deviation, omission, and error: Minor and Major.
2. See AFI 11-202V2 for additional terms.